III. RESEARCH DATA AND INFORMATION SOURCES;
RESEARCH METHODS AND TOOLS

REPORTING SYSTEM UPDATE

The ETA 207, Nonmonetary Determinations Report, EB version, has been changed to reflect provisions in Public Law 96-499, the Omnibus Reconciliation Act of 1980. There will be separate break-outs on the form for those disqualified from EB for the following reasons:

1. They were disqualified during the regular benefit series due to voluntary leaving, discharge for misconduct or refusal of suitable work, where the disqualification was not terminated by employment because the State law did not require employment to remove the disqualification.

2. They were not actively seeking work or refused suitable work according to the new P.L. 96-499 Federal definitions.

3. The agent State was not in an EB period.

For specific definitions, see UIPL 1481. New reporting instruc- tions have been issued through MTL 1419 dated July 21, 1981.

The ES 203 production has been shifted back to ETA. MTL 1415 prescribes that tapes should now be mailed to:

United States Department of Labor
Employment and Training Administration
Room 7410, Attention: TURA
601 D Street, N.W.
Washington, D.C.   20213

Tenth Edition of Research and Development Publication

The Department of Labor has issued the tenth annual edition of the publication, Research and Development Projects, which summarizes projects funded by the Office of Research and Development (ORD) of the Employment and Training Administration. The publication lists projects active on September 30, 1980, and those completed between October 1, 1977 and September 30, 1980. It also lists reports and related publications funded by ORD and received during the previous two fiscal years. Projects and publications are grouped by subject matter. Institutional, doctoral dissertations and small research project grants are listed separately. The publication includes guidelines for submitting proposals for research and development projects.

Copies of the publication may be obtained without charge from:

Inquiries Office
ETA, Department of Labor
601 D Street, N.W., Room 10225
Washington, D.C. 20213
Phone: 202-376-6730

Benefit Financing Model Status

Presently the model is available for use in eleven reserve-ratio States. These include the original three States that worked closely with William Mercer, Inc., to develop the model--New York, Kentucky and Georgia-- and an additional eight States for which the model was modified by the Division of Actuarial Services--Wisconsin, North Dakota, South Dakota, Pennsylvania, Maine, Iowa, Nebraska and West Virginia. The latter two States just recently acquired access to the model. Substantial work has been done with Louisiana, North Carolina, Idaho and Virginia and it is anticipated that these States will have access shortly. To accomodate Virginia's experience rating system, the model is being modified to simulate the benefit-ratio system.

Some work has been done for Missouri and Delaware, the latter requiring a modification to simulate the benefit-wage ratio experience rating system. In addition, preliminary work has been done by Massachusetts toward acquiring access to the model.

For further information about the model, contact Ron Wilus, (202-376-7066.)

Title: U.I. Benefit Cost Model

Author: David Teal, Supervisor
Division Support Unit, Research and Analysis

Date Revised: September 30, 1981

Method

1. Program is written in APL.

2. The benefit cost model calculates the average weekly benefit amount (WBA) for a given universe distributed by base period earnings (BPE). (Alaska uses base period earnings to determine WBA). This cost model is used to test alternate schedules for WBA. It will print an average WBA for the universe and the percent increase over the current schedule. If requested a table will print in increments of $250 (universe is in $250 increments of BPE). In addition to BPE earnings intervals and corresponding benefits, following is printed:

    a. percent of benefits at that earning interval.
    b. cumulative percent of benefits.
    c. percent of claimants at that earning interval.
    d. cumulative percent of claimants.
    e. percent of weekly wage replacement.

   The table permits an easy review of the schedule to determine the effect of schedule on the universe. The program is tailored to the Alaskan concept of average weekly wages (using BPE÷52) however could be easily revised for states using high quarter earnings to determine the claimants' WBA; (where AWW=HQE/13).

3. Input

    a. Universe of claimants by earnings interval.
    b. Proposed WBA schedule using the same earnings interval.

4. Output

   Average WBA for schedule and, if requested, detail table as defined above.

Availability

   For copy of program and sample output, contact:

   David Teal, Supervisor
   Division Support Unit, R&A Section
   Alaska Department of Labor
   P. O. Box 1149
   Juneau, Alaska   99811

Title: Alaska Trust Fund Projection Model

Author: David Teal, Supervisor, Division Support Unit
Research and Analysis Section.

Date Revised: January 31, 1981

Method

1. Program is written in APL.

2. The trust fund model projects the trust fund balance for seven years under three scenarios to evaluate alternative tax and benefit provisions.

3. Input

   a. Ratio of tax base to average annual wage for proposed tax system.
   b. Interim ratio if applicable.
   c. Duration factor for variable or fixed duration of proposed benefit program.
   d. Ratio of new ineligibles in proposed new benefit eligibility provisions.
   e. Base year average weekly benefit amount from output of U.I. Benefit Cost Model for proposed benefit schedule.

4. Output

   a. Employment, earnings and unemployment assumptions used.

   b. Seven year annual summary of activity for each scenario. Summary includes tax base, taxable wages, ratio of taxable to total wages, reserve rate, average, minimum and maximum tax rates, contributions, benefits and fund balance.

Availability

For copy of program and sample output, contact:

David Teal, Supervisor
Division Support Unit, R & A Section
Alaska Department of Labor
P. O. Box 1149
Juneau, Alaska   99811

Trust Fund Solvency/Adequacy

Common to all systems of insurance based on actuarial principles
is the need to establish a proper relationship between income,
outgo and reserves. In order to effect such a balance, it is
first necessary to determine the risks insured against. In
the case of unemployment insurance, the risk is closely tied to
economic factors which are subject to wide and sometimes sudden
fluctuations. Financial planning must take account of past
experience and consider possible future trends in employment
and unemployment. Most States conduct their own studies in
this area to determine the proper balance and reserves for an
adequate system.

But what is an adequately funded system? There is no definitive
answer to that question. Certainly the subject needs more study.
The following discussion of approaches to measuring adequacy
may provide a good starting point for the creation of more
satisfactory solutions. This discussion was written by James
Manning, Chief of the Division of Actuarial Services of the
Unemployment Insurance Service.

Unemployment Insurance Trust Fund Solvency and Adequacy

Restoring State trust funds to solvency and adequacy is a Secretarial Objective for FY 1982. As such, the following appeared in the FY 1982 State Agency Program and Budget Planning (PBP) Guidelines:

> The vast majority, of States do not have adequate trust funds. In addition, a substantial majority of State UI Trust Funds are insolvent. It is critical that the solvency and adequacy of State UI Trust Funds be given high priority in FY 1982 due to their current weakness and the need to replenish the fund prior to the next economic downturn. To ensure adequate funding, States must carefully review their contribution rate structure, review the relationship between contributions and benefit payments and provide for an adequate income to ensure the maintenance of a financially sound fund.

> Those States that have loans to repay or have inadequate reserves should develop plans for restoring financial solvency and adequacy to their trust funds. The SESA plan should include a detailed action plan with milestone dates to facilitate tracking. The plan should analyze the net impact of projected revenues and projected benefit payments, and it should discuss legislative changes proposed to strengthen trust funds.

There is no one definition of an adequate reserve in the UIS. However, the most widely accepted criterion is that of the reserve multiple. The National Commission on Unemployment Compensation (NCUC) also looked into the question of adequacy and solvency measures. For your information and guidance these two approaches to trust fund adequacy are discussed below.

Reserve Multiple

Total wages provide the most stable measure of program liability and for estimating potential liability. Moreover, the use of this stable measure makes possible more valid comparisons, over time, of the impact of unemployment levels on benefit costs. In other words, for different years with similar unemployment levels, benefit costs, if expressed in terms of percentages of total wages, will be approximately equal. Consequently, the ratio of benefit payments to total wages during the worst prior recession period provides a guide to the minimum reserve level required to finance a similar recession in the future. The required ratio may be obtained by relating benefit payments to total wages during the 12- consecutive-month period in which this ratio was the highest. A severe spell of unemployment, however, is almost never confined to a single 12-month period, but typically extends 18 months or more. On the average, the cost of such a spell is about one and one-half to two times the cost of the 12

consecutive months in which costs have been the highest. Thus,
a reserve fund equal to no less than one and one-half times the
ratio of benefits to total wages during the highest-cost 12-
month period gives an indication of a bare minimum of reserve
adequacy.

A reserve equal to this minimum level will pay the costs of one
spell of unemployment as severe as the worst previous spell in
the recent history of the program, with a margin of safety
added. The tax revenue collected during a recession period
would help to pay the benefit burden should the cost exceed
any previously experienced. This revenue would also provide
a base upon which to rebuild the reserve fund after the spell
of unemployment was over.

This is referred to as the reserve multiple concept. A State
should have a reserve multiple of at least 1.5 at the onset of a
recession. The reserve multiple is defined as the ratio of the
State Reserve Ratio to the State's highest 12-month benefit cost
rate or

$$\text{Reserve Multiple} = \frac{(\text{Reserve Ratio})}{(\text{high benefit cost rate})}$$

$$= \frac{(\text{Current year reserve} \div \text{current year's total wages})}{(\text{highest 12-month cost} \div \text{total wages for same period})}$$

This reserve multiple is referred to as a static measure in that it
measures the adequacy of a State's fund at a point in time. A short-
coming of the measure is that it is only valid at one point in any
business cycle--the beginning of a downturn. However, it is a
useful measure in that it is a level which all States should be
building toward. A State can gauge where it is in the cycle and
should be able to evaluate whether it is likely to reach this
desired level at the appropriate time.

Two examples will help illustrate the Reserve Multiple concept:

State A

    Cost rates are compared and 1960 is deemed highest.

    1960   benefit cost rate:
(a) 1960   benefits = $20,526,000
(b) 1960   Total Wages = $1,540,225,000

    1960   benefit cost rate = (a) ÷ (b) = 1.33%

    1979   Reserve ratio:
(c) 1979   reserve = $238,442,000
(d) 1979   Total wages = $8,597,314,000

    1979   Reserve ratio = (c) ÷ (d) = 2.77%

    1979   Reserve Multiple = '79 Reserve ratio ÷ '60 benefit cost rate
                             = 2.77% ÷ 1.33%
                             = 2.08

State A's reserve multiple exceeds 1.5 and their reserve is considered adequate.

State B

Cost rates are compared and 1975 is deemed highest

1975 benefit cost rate:
(a) $\frac{1975 \text{ benefits}}{1975 \text{ benefits}}$ $244,825,000   (Regular UI)
            26,977,000   (State share EB)
           $271,802,000   Total

(b) 1975 total wages $ 15,150,942,000
     1975 benefit cost rate = (a) ÷ (b) = 1.79%

1979 Reserve ratio: determined
(c) $\frac{1979 \text{ Reserve}}{1979 \text{ Reserve}}$ = $419,654,000
(d) 1979 Total wages = $24,799,787,000
     1979 Reserve Ratio = (c) ÷ (d) = 1.69%

     1979 Reserve multiple = '79 Reserve ratio ÷ '75 benefit
                            cost rate
                    = 1.69% ÷ 1.79%
                    = .94

State B's reserve multiple is less than 1.5 and although the fund is solvent it is not considered adequate. To have an adequate reserve, i.e. 1.5 multiple, the 1979 reserve should be:

     '79 Reserve = 1.5 X('75 benefit cost rate)
                x('79 Total wages)
            = 1.5 x .0179 x 24,799,787,000
            = $665,874,000.

Note: Total wages shown in above examples are total wages for taxable, not reimburseable, employers in a State. Likewise benefit payments for reimburseable employers are not included in high cost computation.

NCUC findings on State solvency measures

The Commission recognized that States are in a critical period of restoring the financial solvency and integrity of their UI programs. Long-range financial planning on the part of States is a necessity. Increased resources at all levels—State, regional, and national— need to be devoted to this effort. The Commission strongly urged each State to develop effective solvency measures based on the following analysis.

Both reserve levels and the system's revenue-generating capacity should be considered in designing the specific solvency measure. Past experience indicates that reserves as a percentage of total wages at the beginning of a downturn should be between 1.5 and 3.0 times the State's average annual benefit cost rate for some prior period. Using an average of several high benefit cost rates provides more stability than a one-year rate, which could shift dramatically from year to year. The past measurement period should be responsive to changing economic conditions and therefore be a moving base period, e.g., the most recent 15 years of experience.

With respect to the tax structure adequacy, the Commission's review indicated that State laws should provide for a maximum income rate, or revenue-generating capacity, that is in excess of the expected long-term benefit cost rate. The excess allows for planning error and added fund rebuilding capacity.

Those States opting for a relatively low reserve multiple, less than 2.0 perhaps, accordingly should utilize a higher maximum income rate, and vice versa. Obviously, the combination of reserve level and revenue-generating capacity are for the most part determined by State economic conditions and political preferences.

The Commission's review also found that the use of an absolute or fixed measure, e.g., absolute dollar amount to adjust tax inflow into the fund can lead to financial difficulties. A fixed measure simply does not keep pace with the changing liabilities of the system and risk to the fund. The Commission believes that a provision stated in terms of a relative criterion (such as total wages or flexible taxable wages) more accurately reflects the changing financial responsibilities of the system.
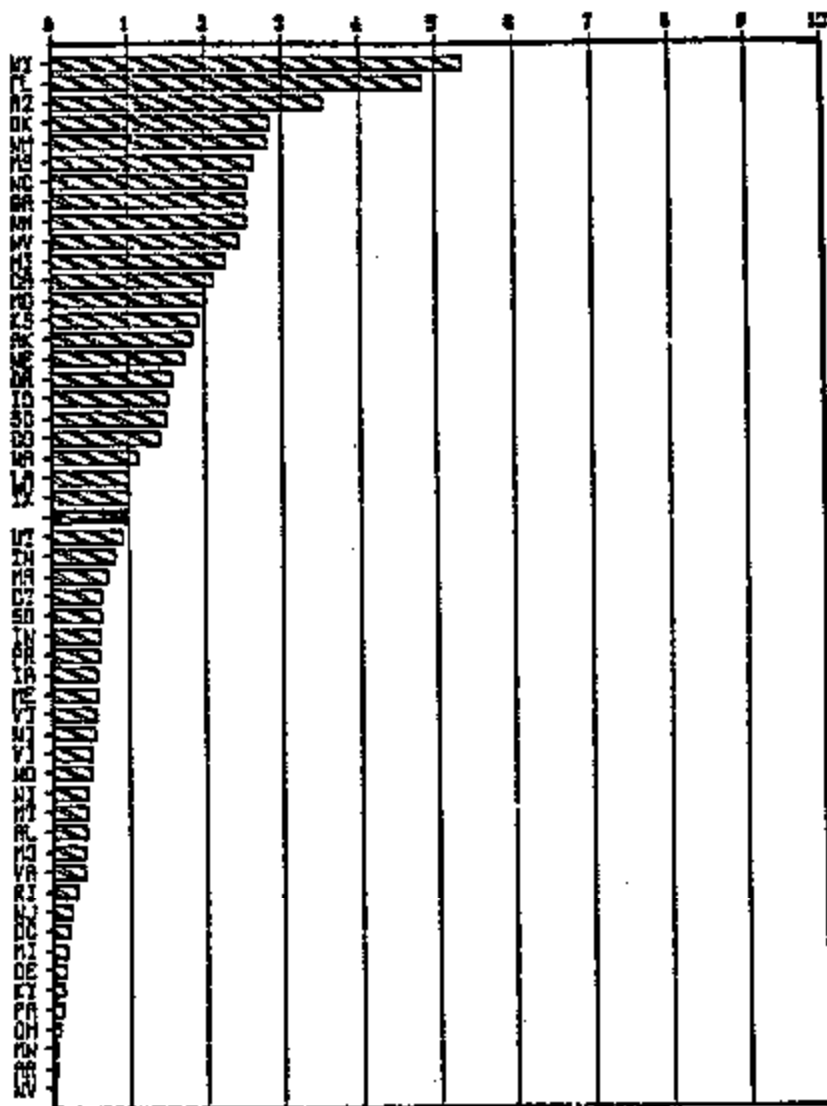
Reserve Level Adequacy Versus Responsiveness

There can be developed a compromise to the above approaches. Instead of having a very large reserve that is only needed at the onset of an abnormal downturn, a very responsive taxing system is put in place. With such a system, a significant drain on these reserve funds will trigger in a tax structure sufficient to cover the high costs quickly. This, then, acts in the same manner that a large reserve does. The revenue generating capacity of the system must be flexible enough to expand many times over from one year to the next as opposed to the more conventional experience rating system that recovers from a recession over a three-year cycle or longer. While this has the advantage of permitting smaller reserves, it has the less desirable characteristics of imposing the higher tax before the downturn may be over, i.e., it is procyclical as opposed to the more common countercyclical approach to financing.

To further illustrate the continued deterioration of State trust funds, the following charts compare trust fund balances on December 31 with the regular UI outlays for the same year. The 1974 chart shows most States had at least one year of outlays in their trust funds while the 1980 chart shows less than half the States having one year of outlays in their trust fund and overall reserves well below the 1974 level.

CHART A

STATE TF BALANCES DEC. 1974 AS
A PERCENT OF CY 1974 REG. UI OUTLAYS

CHART B

STATE TF BALANCES DEC 1980 AS
A PERCENT OF CY 1980 REG. UI OUTLAYS

SOURCE DOL / ETA / UIS